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Reimbursement policies of Swiss health insurances for the surgical treatment of symptomatic abdominal tissue excess after massive weight loss: A retrospective cohort study

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Background: Patients with symptomatic abdominal tissue excess following massive weight loss (MWL) may experience various types of skin affections associated with hygiene challenges, functional impairments, psychological distress and back pain all of which significantly impact quality of life (**Fig. 1**). Abdominoplasty effectively addresses these issues when conservative treatments prove ineffective. Despite surgical indication, health insurance companies (HICs) in Switzerland frequently deny reimbursement.

Study aim: To evaluate the consequences of reconsideration due to HIC's initial rejections, quantifying time delays and additional costs, while assessing postoperative well-being of patients.

Fig. 1. (A–C) Clinical example of abdominal tissue excess after MWL in a 59-year-old patient, presenting with a large abdominal fat apron. (B) Note the skin rash directly at the panniculus fold despite daily local treatments.

Material & Methods: Retrospective cohort study that included patients undergoing abdominoplasty and neo-position of the umbilicus for symptomatic abdominal tissue excess after MWL between July 2019 and December 2023 (**Fig. 2**).

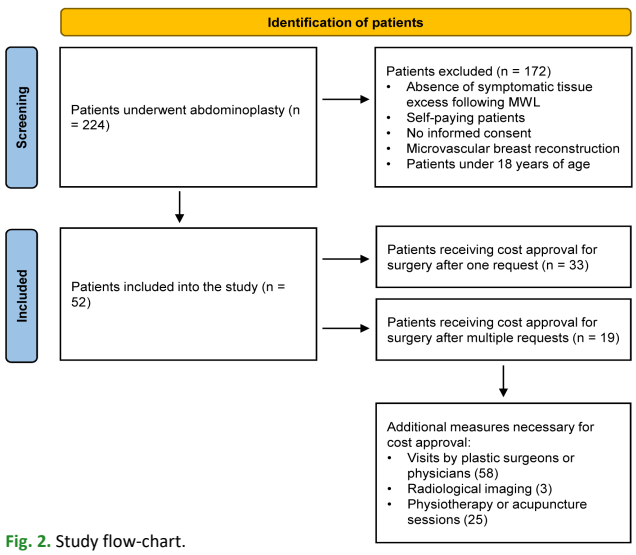

Fig. 2. Study flow-chart.

Results: Of 52 patients included, **33** received cost approval after a **single request**, whereas **19** required **multiple submissions**. Both groups were comparable in terms of baseline characteristics (e.g. age, BMI, excess of weight, weight stability) and preoperative signs and symptoms.

The mean duration until approval was 15 weeks, with a **26-weeks delay** in the multiple-request group (**Fig. 3**). This led to **additional diagnostic and therapeutic measures** in the multiple-request group between the initial refusal and the final acceptance, generating **additional costs of CHF 715 per patient** (**Table 1**). Moreover, abdominoplasty significantly improved patient's well-being, with no differences between groups.

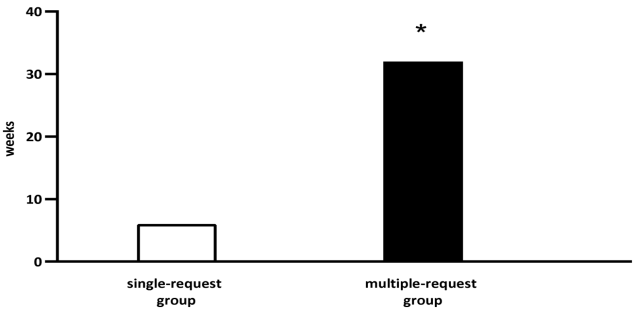

Fig. 3. Mean time in weeks required for cost approval between the single- and multiple-request groups. * $p < 0.05$.

Diagnostic and therapeutic measures	Single-request group (n = 33)	Multiple-request group (n = 19)	Cost difference
Visits by plastic surgeons	0 ± 0	179 ± 79 **	179 ± 18
Visits by other specialists	0 ± 0	417 ± 374 **	417 ± 86
Radiological imaging	4 + 25	28 ± 69	25 ± 16
Physiotherapy and acupuncture	0 ± 0	95 ± 292 *	95 ± 67
Total	4 ± 25	719 ± 446 **	**715**± 103

Table 1. Mean additional costs per patient in CHF for diagnostic and therapeutic measures that occurred between the first request and the final acceptance in the single- and multiple-request group. Mean ± SD; * $p < 0.05$ and ** $p < 0.001$.

Conclusions: Initial reimbursement denials, despite clear surgical indication for abdominoplasty, might lead to treatment delays, prolonged symptomatology, and increased healthcare costs. Standardized documentation and closer collaboration between HICs and surgeons could streamline the reimbursement process and ensure timely care. However, future studies involving larger cohorts are needed to support these findings.